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EXAMINER

SHRESTHA, BIJENDRA K

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3691

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/675,449	Applicant(s) ANDREWS, RYAN N.	
	Examiner Bijendra K. Shrestha	Art Unit 3691	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Objections

1. Claim 20 is objected as it refers to itself. The Examiner interprets it is referring to independent claim 16. Appropriate correction is required.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: Table 2 and 3 (page 17). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761

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(CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

3. Claims 1, 12 and 16 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 1 of copending Application No. 11/415,845. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reuter et al., U.S. Pub No. 2002/0049666 (reference A in attached PTO-892) in view of Mott, U.S. Patent No. 7,161,907 (reference B in attached PTO-892).

6. As per claim 1, Reuter teaches a method for optimizing the distribution of market information in an electronic trading environment (see Fig. 1; paragraph [0011] and [0012]).

Reuter et al. do not teach the method comprising determining bandwidth for a communication link that is used in distributing market information from an electronic market; and

dynamically selection a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information.

Mott teaches the method comprising determining bandwidth for a communication link that is used in distributing market information from an electronic market (see column 6, lines 32-48)); and

dynamically selection a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information (see column 7, lines 1-30)

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add the method comprising determining bandwidth for a communication link that is used in distributing market information from an electronic market; and dynamically selection a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information of

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Reuter et al. because Mott teaches incorporating above features enables effective transfer of information and flow control allows the rate of data transfer to be adjusted in order to prevent the slower devices from losing information (Mott, column 1, lines 10-18).

7. As per claim 2, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein the mode of transmission comprises automatically sending an update message with new market information when a change in a market order book is detected (see paragraph [0005]).

8. As per claim 3, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein the selected mode of transmission comprises sending update messages with new market information on intervals (see paragraph [0005]; where market data is periodically transmitted to trading terminal).

9. As per claim 4, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein the communication link comprises a network connection from the market information source to a gateway (see Fig. 1, paragraph [0015], [0016] and [0035]).

10. As per claim 5, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein the communication link comprises a network connection from an electronic market information source to a client device (see Fig. 1; paragraph [0016]).

11. As per claim 6, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein

the communication link comprises a network connection from a gateway to a client device (see Fig. 1; cohost server(107) which acts as gateway to client devices 104-106).

12. As per claim 7, Reuter et al. teach claim 1 as described above. Reuter et al. further teach the method wherein determining bandwidth for a communication link comprises manually setting a bandwidth limit (see paragraph [0011] and [0017]; the Examiner interprets bandwidth allocation include manual setting of bandwidth limit by its usage).

13. As per claim 8, Reuter et al. teach claim 1 as described above.

Reuter et al. do not teach the method wherein determining bandwidth for a communication link comprises measuring the bandwidth electronically by software.

Mott teaches the method wherein determining bandwidth for a communication link comprises measuring the bandwidth electronically by software (see column 3, lines 23-28; column 6, lines 36-38).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add the method wherein determining bandwidth for a communication link comprises measuring the bandwidth electronically by software of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

14. As per claim 9, 10 and 11 Reuter et al. teach claim 1 as described above.

Reuter et al. do not teach that the mode of transmission can be dynamically changed from a first mode to a second mode when the second mode maximizes the distribution of the market information more than the first mode and vice versa, and aspects of the mode of transmission may be dynamically adjusted to comport with changing bandwidth limits.

Mott teaches the mode of transmission can be dynamically changed from a first mode to a second mode when the second mode maximizes the distribution of the market information more than the first mode and vice versa, and aspects of the mode of transmission may be dynamically adjusted to comport with changing bandwidth limits (Mott, column 4, lines 49-54; column 7, lines 1-19, 55-60).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add the method wherein mode of transmission can be dynamically changed from a first mode to a second mode when the second mode maximizes the distribution of the market information more than the first mode and vice versa, and aspects of the mode of transmission may be dynamically adjusted to comport with changing bandwidth limits of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

15. As per claim 12, Reuter et al. teach a method for optimizing the distribution of market information in an electronic trading environment (see Fig. 1; paragraph [0011] and [0012]).

Reuter et al. do not teach the method determining a bandwidth limit for a communication link that is used in distributing market information from an electronic market, selecting a first mode of transmission for distributing the market information from a plurality of modes of transmission to comport with the bandwidth limit and maximize the distribution of the market information; and dynamically selecting a second mode of transmission for distributing the market information from the plurality of modes of transmission when the bandwidth used to distribute the market information by the first mode of transmission exceeds the bandwidth limit.

Mott teaches the method of determining a bandwidth limit for a communication link that is used in distributing market information from an electronic market (see Fig. 1; column 6, lines 32-48));

selecting a first mode of transmission for distributing the market information from a plurality of modes of transmission to comport with the bandwidth limit and maximize the distribution of the market information (see Fig. 3A-C; column 7, lines 1-28); and

dynamically selecting a second mode of transmission for distributing the market information from the plurality of modes of transmission when the bandwidth used to distribute the market information by the first mode of transmission exceeds the bandwidth limit (see column 4, lines 49-54).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add the method of determining a bandwidth limit for a communication link that is used in distributing market information from an electronic market, selecting a first mode of transmission for distributing the market information from a plurality of modes of transmission to comport with the bandwidth limit and maximize the distribution of the market information; and dynamically selecting a second mode of transmission for distributing the market information from the plurality of modes of transmission when the bandwidth used to distribute the market information by the first mode of transmission exceeds the bandwidth limit of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

16. As per claim 13, Reuter et al. teach claim 12 as described above.

Reuter et al. do not teach the step of selecting again the first mode of transmission for distributing the market information when the bandwidth used to distribute the market information by the first mode comports with the bandwidth limit and maximizes the distribution of the market information better than the second mode of transmission.

Mott teaches teach the step of selecting again the first mode of transmission for distributing the market information when the bandwidth used to distribute the market information by the first mode comports with the bandwidth limit and maximizes the distribution of the market information better than the second mode of transmission (Mott, column 7, lines 1-8; column 11, lines 24-30).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add the step of selecting again the first mode of transmission for distributing the market information when the bandwidth used to distribute the market information by the first mode comports with the bandwidth limit and maximizes the distribution of the market information better than the second mode of transmission of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

17. As per claim 14 and 15, Reuter et al. teach claim 12 as described above. Reuter et al. further teach the method wherein

the first mode of transmission provides a fast response time to changing market conditions; and the second mode of transmission provides predictable network bandwidth consumption (see paragraph [0012], [0013] and [0014]).

18. As per claim 16, Reuter et al teach a system for maximizing the distribution of market information in an electronic trading environment (see Fig. 1; paragraph [0011] and [0012]).

Reuter et al. do not teach a bandwidth monitor for determining bandwidth for a communication link that is used in distributing market information from an electronic market; and a market information interface for dynamically selecting a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the

selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information.

Mott teaches a bandwidth monitor for determining bandwidth for a communication link that is used in distributing market information from an electronic market (see Fig 2, Switch Element (200); column 6, lines 58-66).

Mott also teaches a market information interface for dynamically selecting a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information (see Fig. 2; column 1, lines 65-67 to column 2, lines 1-3).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add teach a bandwidth monitor for determining bandwidth for a communication link that is used in distributing market information from an electronic market; and a market information interface for dynamically selecting a mode of transmission for distributing the market information from a plurality of modes of transmission such that the bandwidth used to distribute the market information by the selected mode of transmission comports with the determined bandwidth and maximizes the distribution of the market information of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

19. As per claim 17 and 19, Reuter et al. teach claim 16 as described above.

Reuter et al. do not teach system wherein the bandwidth monitor receives a bandwidth limit signal indicating the maximum allowable bandwidth for the communication link; and the bandwidth limit is dynamically adjusted according to current bandwidth consumption on the communication link.

Mott teaches that the system wherein
the bandwidth monitor receives a bandwidth limit signal indicating the maximum allowable bandwidth for the communication link (see Fig. 1; column 6, lines 32-38);
the bandwidth limit is dynamically adjusted according to current bandwidth consumption on the communication link (see column 6, lines 38-48).

Therefore, it would be prima facie obvious to one of ordinary skill in the art at the time the invention was made to add system wherein the bandwidth monitor receives a bandwidth limit signal indicating the maximum allowable bandwidth for the communication link; and the bandwidth limit is dynamically adjusted according to current bandwidth consumption on the communication link of Reuter et al. because Mott teaches incorporating above features enables to flow control and provide basic mechanism for effective transfer of data and other information (Mott, column 1, lines 10-11).

20. As per claim 18, Reuter et al. teach claim 17 as described above. Reuter et al. further teach the system wherein

the bandwidth limit is manually set (see paragraph [0011] and [0017]; the Examiner interprets bandwidth allocation include manual setting of bandwidth limit by its usage).

21. As per claim 20, Reuter et al. teach claim 16 as described above. Reuter et al. further teach the system wherein

a market information storage buffer for buffering market information before being distributed according to the selected mode of transmission on the communication link (see Fig. 1; paragraph [0016] and [0017]).

Conclusion

21. The prior art made of record and not relied upon is considered pertinent to applicant's disclosures. The following are pertinent to current invention, though not relied upon:

Chawla et al. (U.S. Patent No. 6,876,668) teach apparatus and method for dynamic bandwidth allocation.

Choudhary et al. (U.S. Pub No. 5,541,912) teach dynamic queue length thresholds in a shared memory ATM switch.

Ennis, Jr. et al. (U.S. Patent No. 5,867,483) teach method and apparatus for measurement of peak throughput in packetized data networks.

DeLima et al. (U.S. Pub No. 2002/0143981) teach quality of service improvements for network transactions.

Fishhaunt et al. (U.S. Pub No. 2004/0024845) teach data transfer system.

Garin et al. (U.S. Pub No. 2002/0116124) teach information transfer in multi-mode global positioning system used with wireless networks.

Goguen et al. (U.S. Patent No. 6,665,273) teach dynamically adjusting multiprotocol label switching (MPLS) traffic engineering tunnel bandwidth.

Mitsutake et al. (U.S. Patent No. 6,240,460) teach method and system for data transmission accordance with the form of the data transmission.

Selinger (U.S. Patent No. 6,345,038) teaches improved access to congested networks..

Sherman (U.S. Patent No. 5,978,387) teaches dynamic allocation of data transmission resources.

Shibamiya et al. (U.S. Pub No. 2004/0061805) teach receiving apparatus, image display system and broadcasting method.

Shirai et al. (U.S. Patent No. 5,912,877) teach data exchange, data terminal accommodated in the same, data communication system and data communication method.

Sriram (U.S. Patent No. 5,463,620) teaches bandwidth allocation, transmission scheduling, and congestion avoidance in broadband asynchronous transfer mode networks.

Taylor (U.S. Pub No. 2003/0214966) teaches method of maximizing use of bandwidth for communicating with mobile platform.

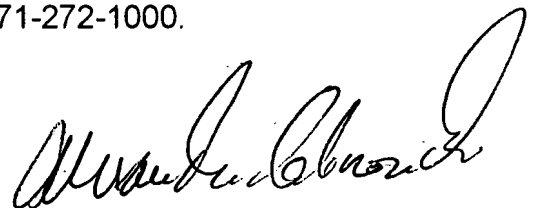
Zavalkovsky et al. (U.S. Patent No. 7,096,260) teach marking network data packets with differentiated services code points based on network load.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bijendra K. Shrestha whose telephone number is (571)270-1374. The examiner can normally be reached on 7:00 AM-4:30 PM (Monday-Friday); 2nd Friday OFF.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alexander Kalinowski can be reached on (571)272-6771. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BKS



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